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WILTON L. HALVERSON, M.D.
DIRECTOR OF PUBLIC HEALTH

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GUY P. JONES
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ISOLATION OF RECALCITRANT TUBERCULOUS PATIENTS

Many of the smaller counties of California encounter difficult problems in the management of tuberculous patients who refuse isolation, who absent themselves without leave from sanatoria and who negligently and wilfully expose others to their infection. In Los Angeles County great strides have been made in the solution of the difficult problems associated with the isolation of recalcitrant individuals who suffer from infectious tuberculosis. Under the leadership of the late Dr. J. L. Pomeroy, Los Angeles County Health Officer, and Dr. P. K. Telford, Chief of the Los Angeles County Division of Tuberculosis, a policy of enforced isolation, when indicated, has been followed for more than 10 years. The experiences in this county formed the basis for a conference sponsored by the California State Department of Public Health held in Los Angeles County March 20, 1943. This conference was attended by health officers, tuberculosis control officers, sanatorium superintendents, representatives of the State Attorney General's office, and other interested officials. It was agreed, generally, that the statutes in effect at the present time are sufficient to provide proper legal backing. The chief barrier to a more active program seems to be a general lack of appreciation of its importance and necessity. In reciting the experiences of Los Angeles County in its successful management of the recalcitrant tuberculous Dr. Telford said:

"Of prime importance in considering the subject of isolation of tuberculosis is the fact that in the dozen years or so that we have been engaged in the work, of all the difficulties and criticisms that we have encountered, no one has ever expressed the opinion that such

isolation was not desirable from a medical or epidemiological standpoint, if the procedure was found practicable. We have, therefore, a sound medical and public health basis for our attempt to segregate the spreaders of this disease.

"There were a number of circumstances that persuaded us to embark on this attempted isolation. In the first place, it was realized that the incidence of the disease has been reduced to a low enough level that we could begin to consider the possibility of exercising control over the most dangerous cases, at least. That this procedure was becoming possible at this time was due largely to the great increase in institutional beds devoted to the care of the tuberculous patient. In the early period of the rapid and widespread development of tuberculosis sanatoria, their prime purpose was usually stated as being particularly for the care of early, minimal cases that could be expected to be improved by institutional treatment. The proportion of minimal cases found in clinic work and surveys became a fetish and an obsession. It soon dawned on us that we were sending many minimal cases to the institution that were not active, and repeated studies of the fate of the minimal cases discovered showed that the care of minimal cases was not a major part of the campaign against tuberculosis. We found that the minimal cases that stayed at home had a better record than those that went to the institution—which fact could not be accepted at its face value, because, of course, the worst cases were more easily induced to go to the sanatoria, and the cases that remained at home as a consequence were likely of a less serious nature. But the finding was significant enough to point out the fallacy of the original idea of establishing public sanatoria primarily for minimal cases.

"It was also found that when the insignificant minimal lesions, which proved to have no activity, were eliminated, there was a certain maximum of new active minimal cases that could be discovered on any sort of

survey. The institutions were found to contain from two-thirds to three-quarters of advanced cases. The conclusion, therefore, soon followed that a comparison of the mortality rates in the institutions and of discharged institutional cases with mortality rates of patients without sanatorium care failed to demonstrate advantages in treatment that were worth the trouble and expense. The greatest advantage of institutional care for tuberculosis accrued from the segregation of advanced patients from the rest of the population, particularly from the intimate contacts in the homes. If that separation of the patient from those he was likely to infect was to be effective, certainly some legal control over the movement of the patient had to be established, and not left entirely to the voluntary cooperation of the patient.

"Another situation arose in which we had to go forward with a widespread public education program of the danger of the spread of the disease, or else acknowledge as a health department we were incapable of coping with the situation. For many years we made the rounds of all the schools in the county, tuberculin testing children and X-raying the positive reactors, and in later years attempted to examine in the same manner all household contacts of positive reactors. We had one physician employed full time holding conferences with some responsible adult member of the positive reacting students, to explain the communicability of tuberculosis. These parents, guardians and relatives were exercised over the evidence of live bacilli in the student and eagerly absorbed the information given to them orally and in pamphlet form. It was emphasized to them that the child was infected because the sputum of a person ill with tuberculosis had gotten into the mouth of the child, that such exposure continued in later years could result in chronic secondary infection, and that they had a right to demand of the health department that they be protected against such infection. In this situation what could we do but enforce isolation of known dangerous cases?

"As a corollary and necessary contributing legal function, we had to also require by legal order the examination of refractory household contacts and reasonably suspected cases. As you may interpolate, no such arbitrary action as we have been carrying out in the control of tuberculosis is possible without the support of the general population, and the education accomplished in our school surveys created, not only a permissive attitude in our people, but an enthusiastic support of our segregation of dangerous cases. This is evidenced by the fact that in the many hundreds of arbitrary legal actions that we have instituted, there has never been any popular objection voiced to the courts, the health officer, the supervisors, or the press.

"The greatest obstacle we have encountered has been a reluctance, or a fear, of officials to embark upon a new and untried legal procedure because of the theoretical responsibilities involved. Even Dr. Pomeroy, who was our county health officer at that time, and who was particularly interested in tuberculosis and gave us hearty support in any reasonable activity in the suppression of tuberculosis, gave his approval to the procedures with great trepidation and remained fearful for years of some embarrassing repercussion from these activi-

ties. I can remember several instances, early in our experience, where the patient made such vigorous protest to Dr. Pomeroy he summarily canceled our order, and invariably these orders had to be reissued at a later date with Dr. Pomeroy's support. The evidence of grossly positive sputum, and oftentimes new cases developing in the family in contact with such a patient, is a challenge to any health officer who has the means at his disposal to suppress such spread.

"Our experience in court in the many instances of prosecution for violation of isolation orders for tuberculosis has impressed us with the almost universal wholehearted support of the justices. The only criticism expressed by these judges has been related to the vigorous objection of patients isolated in some of our privately operated institutions housing public patients, where the care is known to be inadequate. It is going to become necessary to restrict our legal isolations to placements in public institutions approved by and subsidized by the State Department of Health. Satisfactory isolation is not always necessarily in an institution, for we have many patients who are adequately isolated at home. All other variables from these typical situations, such as the chronic infected and more or less healed persons with rare tubercle bacilli in the sputum, or with insignificant cases with infection in the sputum demonstrable only by gastric lavage, are dealt with consistently with the facts in the individual case and the restrictions and supervision are modified as indicated.

"The widespread activities of health agencies in surveying various groups of students, industrial workers, of inductees and enlistments in the combat forces and contact surveys, are of small avail if we exercise no effective control over those who are known to be spreading the disease. It is comparable to be forever bailing the boat without making an effort to plug up the leak. It would be interesting to review the activities of the various health agencies in the past generation that have accomplished so much, and brought us to the point where we now stand where it is possible to exercise adequate control over the great majority of the persons who are the source of all of our new cases. The percentage of unknown, dangerous cases is becoming smaller constantly as a result of all these activities, and will become still smaller, as the dangerous afflicted persons become more conspicuous by their rarity. Statistics, tables, percentages and all sorts of tiring figures have been scrupulously avoided in this discussion, but a request has been received for a statement of these activities in figures as experienced by the Los Angeles County Health Department. The Los Angeles City Health Department has been equally active, but its figures are not included here. The first order of isolation was issued May 1, 1931, and the present legal form instituted November 11, 1931. During this period of 12 years there were 1,486 orders of isolation in institutions, 1,125 examination orders served, and there were 565 instances of the officer inducing the person to comply without serving the order. Arrests and convictions for violation of any of these orders amounted to 233. One case was lost and we felt that it was due to the prejudice of the jury against conditions in a small rural institution. One complaint was refused because it

would mean life imprisonment for an habitual criminal and one or two other complaints were refused for reasons not pertinent to our study. Evasion of orders by desertion numbered 191. Those are the significant figures and there is no need to burden you further. There are many other activities incidental to this work, such as transfer of place of isolation, miscellaneous investigations and inspections, and office work of recording, filing, and termination of orders because of healing or death or return to legal residence. There have been comparatively few isolations in homes in the past, but increasing requests are being received from the health districts. A majority of those now in force are instances of transfers from institutions to homes. These transfers must be made on demand of patients when they have secured proper places of isolation in some home.

"In conclusion it might be in order to advise caution against misuse of this power. Any evidence of any worker using this authority as punishment for insults, as a threat or to secure consent to treatment indicated, is summarily suppressed. There are some situations that are on the borderline of dangerous spread when other factors influence the decision such as minors experiencing neglect or treatment by flagrant quackery. This responsibility of review and decision must be the responsibility of one individual in each organization, and he must exercise all the judgment he possesses."

Problems in other counties were discussed by Dr. W. A. Powell, Health Officer of Contra Costa County; Dr. Charles E. Janne, Director of Tuberculosis, Santa Clara County; Dr. Edward Lee Russell, Health Officer, Orange County; Dr. Warren F. Fox, Health Officer, Riverside County; Dr. Chesley Bush, Medical Director of the Arroyo del Valle Sanatorium, Alameda County; Dr. John D. Fuller, Health Officer of Santa Cruz County; Dr. John C. Short, Health Officer of Monterey County; Dr. S. F. Farnsworth, Health Officer of Alameda County; and other officials.

Considerable discussion was devoted to standards of communicability in which Dr. Joseph L. Robinson, Medical Director of the Olive View Sanatorium, Olive View, and Dr. F. M. Pottenger, Vice President of the State Board of Public Health, contributed from their extensive experience. The legal phases of the problem were discussed by Mr. Allen M. Martin, Deputy Attorney General, with special reference to the authority of the health department to quarantine persons afflicted with tuberculosis. He said:

"One of the most important of all health regulations is that directed to the exclusion of communicable diseases and the keeping of such diseases, when they once gain an entrance, within the smallest possible limits and providing for the establishment and enforcement of regulations by which their general dissemination shall be prevented and their continued existence rendered improbable or impossible. Power to make quarantine regulations is one of the most frequent powers conferred upon boards of health. The authority of health officers or boards of health to quarantine for scarlet fever, diphtheria, smallpox, measles, and other such

common maladies, is so well recognized, both as a practical measure and by judicial endorsement, that any comment concerning such authority would be superfluous. However, it appears that no definite steps have been taken with respect to the quarantine of those infected with tuberculosis. An examination of several of the leading law digests has failed to uncover any cases in which definite judicial endorsement has been placed upon the power of health officers or boards of health to quarantine for such a disease.

"However, it is my opinion that health authorities, at least in the State of California, have the power to quarantine in case of an active case of tuberculosis. It is expressly provided in Section 2558 of the Health and Safety Code:

"Whenever in the judgment of the State department it is necessary for the protection or preservation of the public health, each health officer shall, when directed by the State department, do the following:

(a) Quarantine and disinfect persons, animals, houses or rooms, in accordance with general and specific instructions of the State department."

Health and Safety Code Sections 2561 and 2563 provide the mechanics for such quarantine.

"Health and Safety Code Section 2554 provides in part that 'each health officer . . . knowing or having reason to believe that any active case of . . . tuberculosis . . . or any other contagious or infectious disease exists, or has recently existed, within the territory under his jurisdiction, shall take such measures as may be necessary to prevent the spread of the disease.'

"Health and Safety Code Section 2524 provides, in part, that the State Department of Public Health, upon being informed by a health officer of any contagious, infectious or communicable disease may take such measures as are necessary to ascertain the nature of the disease and prevent its spread. The section further provides that the State department may, if it considers such action proper, take possession or control of the body of any living person in order to accomplish the purposes authorized by this code section.

"Health and Safety Code Section 2571 classifies tuberculosis as a 'reportable' disease. The last paragraph of Section 2571 provides that any of the diseases enumerated in the section and classified therein as reportable, and such other as from time to time may be added by the State department, shall be quarantined, whenever, in the opinion of the State department, that action is necessary for the protection of the public health, and shall be isolated whenever, in the opinion of the department or health officer, isolation is necessary for the protection of public health.

"Health and Safety Code Sections 200-209 vest the State Department of Public Health with blanket authority to take all reasonable steps and measures to protect and preserve the public health. Thus, since the Legislature has recognized tuberculosis as a contagious, infectious and communicable disease, and in one of which sections (Sec. 2571) specific authority to quarantine is given, it can not be contended successfully that the health departments or health officers are without authority to quarantine and isolate for such a disease.

"The courts in this State, as well as in other states, have recognized that it is sound public policy for health authorities to take reasonable steps to prevent the spread of diseases.

Grover v. Zook, 87 Pac. 638.

Adams v. City of Milwaukee, 129 N. W. 518.

In re Johnson, 40 Cal. App. 242.

In re Culver, 187 Cal. 437.

In re Arata, 52 Cal. App. 380.

In re Travers, 48 Cal. App. 765.

"While the powers of health authorities are very extensive and will be upheld whenever possible, and every presumption indulged in to sustain the validity of their action, their powers are not absolute. The power to quarantine must be exercised only when public necessity demands it within reasonable and fair apprehension, and not on mere suspicion. Whether a quarantine order is justified depends upon the facts of each individual case. A condition precedent to the exercise of the quarantine authority is that the health officer shall know or have reason to believe that the disease exists or has recently existed. (H. and S. Code Sec. 2554.) In the exercise of this unusual power, which infringes upon the right of liberty of the individual, personal restraint can only be imposed where, under the facts as brought within the knowledge of the health authorities, reasonable grounds exist to support the belief that the person is afflicted as claimed. Where a person so restrained of his or her liberty questions the power of the health authorities to impose such restraint, the burden is immediately upon the latter to justify by showing facts in support of the order. It might be proved, for instance, that the infected person had been exposed to contagious or infectious influence; that some person had contracted the disease from him or her, as the case might be. Such proof would furnish tangible ground for the belief that the person was afflicted as claimed.

In re Arata, 52 Cal. App. 380.

In re Milstead, 44 Cal. App. 239.

"More than mere suspicion that the individual is afflicted is necessary to give the officer 'reason to believe.'

In re Shepard, 51 Cal. App. 49.

In re Dayton, 52 Cal. App. 635.

"If reasonable cause to believe that the person involved is afflicted with a quarantinable disease, the person may be quarantined upon a preliminary examination."

In re Milstead, 44 Cal. App. 239.

"Under date of March 7, 1941, the Attorney General's office ruled that the Director of the Department of Public Health was authorized to request the health officers of a certain locality in the State to quarantine an active case of tuberculosis." (Opinion NS3330.)

CONCLUSION

Following is a summary of the results of the conference:

1. Health authorities are authorized to quarantine for an active case of tuberculosis, upon the basis of the provisions of the Health and Safety Code, hereinabove

referred to, in addition to the theme which is present in all court decisions construing these and similar health laws.

2. This authority must be exercised prudently. Reason to believe that the disease exists as prerequisite to the quarantine must be present. The burden is on the health officer to show that reasonable cause exists.

What constitutes reasonable cause depends upon the peculiar facts of each case. The duration of the quarantine and other conditions of the same are left to the rule-making discretion of the health authorities.

A summary of the general conclusions of the conference follows:

1. The local health officer is authorized to quarantine or isolate a person with communicable tuberculosis; he may do this without consultation with or direction from the State Health Department.
2. The local health officer must be prudent in the selection of suitable cases for coercive action; he must be able to show that reasonable cause exists.
3. Enforced isolation is to be resorted to only after thorough trial of persuasion and explanation has been made.
4. A person who breaks tuberculosis isolation is guilty of a misdemeanor, for which he can and should be prosecuted.
5. Recalcitrant tuberculous frequently present complicating factors such as chronic alcoholism or borderline psychosis.
6. The experience in Los Angeles County has shown the practicability of enforced isolation of the tuberculous.
7. A campaign of education on the occasional necessity of enforced tuberculosis isolation is in order.

This conference for which Dr. Edward Kupka, Chief of the State Bureau of Tuberculosis, was responsible, was one of the most successful that has been conducted recently because of the practical value of the discussions that were brought out. The fact that it was attended by so many officials who have had wide experience in the field, provided an unusual opportunity for expert services to be made available to a large group of men who are responsible for the public health of California.

SEWAGE DISPOSAL FROM SMALL HOUSING PROJECTS

Numerous small Federal housing projects, each with a special sewage disposal problem, have threatened to lower our sanitary standards and promote stream pollution. In order to provide water-flushed plumbing in such projects, difficulties have been encountered. Nevertheless, every effort is being made to maintain high standards throughout and to enable the occupants of these projects to enjoy the privileges that come through the availability of water-flushed plumbing.

BOTULINUS KILLS HOGS AND CHICKENS

This is a true story of tragic happenings, two weeks ago, to the owner of a small ranch in Madera County, as related to Dr. Lee A. Stone, County Health Officer, by the farmer himself.

The farmer's wife canned a quantity of string beans in an open kettle, against the advice of those who knew better. She allowed the glass jars of beans to remain in the boiling water in the open kettle with their caps put on loosely, for two hours. Later when they had cooled sufficiently, she screwed the caps on tightly and put the canned beans away for future use by her family.

Weeks rolled by and one day she decided that a dish of home canned beans cooked with a piece of salt pork might be relished by her husband and children as well as by herself. She opened a jar and, as she did so, an intuitive thought flashed through her mind that something might have happened to the jar of beans she had opened and that maybe they were not fit to eat. She decided to destroy the beans she had opened but before doing so, discussed the matter with her husband who immediately said, "feed the beans to the two hogs we have if you are afraid to eat them yourself—hogs are not easily killed by food classed as not being fit for humans to eat, the hogs will enjoy the treat."

Result: the two hogs died of botulinus poisoning as well as 23 chickens that struggled to get their share of the beans from the hogs.

Dr. Stone summarizes the event in the following form:

"Moral Number One—don't feed to animals or fowls food you are afraid to eat yourself.

Moral Number Two—don't eat any home canned vegetables, meat or fish without first submitting them to 15 or 20 minutes of **HARD BOILING**.

Moral Number Three—never taste home canned vegetables, fish or meat until after Moral Number Two has been followed to the letter. Botulinus poison has few or no antidotes.

Moral Number Four—unless you are willing to follow the advice of experts, don't can vegetables, fish or meat!"

INCREASING NEGRO POPULATION AFFECTS VENEREAL DISEASE PREVALENCE

The average number of cases of syphilis reported in California during the first six months of 1943 is 3,064 as compared with 2,162, the average number reported each month during the entire year of 1942. The average number of cases of gonorrhea reported each month during the first six months of this year is 2,231

as compared with a monthly average of 1,646 during the year 1942. It is believed that the heavy influx of negroes into California is a decided factor in the production of this increasing incidence. It is reported that 10,000 members of this race are entering California every month. Furthermore, 31 per cent of all cases of primary and secondary syphilis reported during June were in negroes and 21.8 per cent of all cases of gonorrhea were in this racial group. A negro investigator and a negro public health nurse were employed during July in areas where large colored populations are found. Plans are under way for conducting a three-month training course for 20 negro physicians in private practice in order that better care can be assured for patients who are referred from clinics.

EMERGENCY MATERNITY AND INFANT CARE PROGRAM

The establishment of this program in California is progressing slowly. It is necessary to carry on individual negotiations with each health officer, hospital and physician interested in participating in the program. At the end of July emergency maternity and infant care was being given to the wives and infants of servicemen in Kings, Fresno, Sacramento, Santa Clara and Santa Barbara counties. The development of this program has required many conferences with the hospital associations, health departments, Red Cross officials and medical societies.

CARE OF CRIPPLED CHILDREN

Crippled children services in July were devoted largely to the provision of assistance in the prevention of crippling conditions in children who may suffer from poliomyelitis. Lectures on the Kenny method of treatment were given in Eureka, Santa Rosa, Berkeley, Sacramento, Los Angeles, Fairfield, Vallejo and Richmond. Arrangements were made for nurses in the department to be trained in the Kenny technique. Technicians trained in this method were transferred to areas where their services were needed urgently. During July the regular four cardiac clinics were conducted. A cripple children's diagnostic clinic was held in San Bernardino. Another was held at Manzanar, Inyo County, for Japanese children who are confined there. During the month, 76 such cases were accepted for treatment, of which 40 were received through certificates issued by judges of the superior courts and 36 were received through the use of Federal funds.

INFANTILE PARALYSIS STILL PREVALENT

During the period January 1, 1943, through the middle of August, 1,094 cases of infantile paralysis have been reported in California. The greatest number reported during any one week was the last week of July when 150 cases were reported. This number dropped to 125 during the first week of August and 101 during the second week of that month.

In general, the distribution of cases of this disease has been in proportion to population, but in some of the smaller communities where large numbers of individuals have settled during recent months and in some of the rural districts where camps have been established the incidence of infantile paralysis has been out of proportion to the population. Relatively few cases have been reported from the denser centers of population.

Full and complete reports relative to mortality from the disease are not available at this time, but there is every indication that the fatality rate is low. The department has not received an unusually large number of reports of severe crippling conditions that have occurred in the wake of acute attacks. It is believed that the use of the Kenny method in the treatment of infantile paralysis has been a pronounced factor in the prevention of the serious crippling conditions that are often encountered with this disease. It would seem, also, that the type of infantile paralysis that has prevailed in California this year is less severe than that which has appeared during recent years. Local health officers throughout the State have been particularly active in their efforts to control the disease and in spite of the fact that almost nothing is known relative to the exact method by which infantile paralysis is transmitted, it is believed that isolation, prevention of contact with known cases, safeguarding of food, water and milk supplies, and the promotion of general sanitation have contributed in part, at least, toward the effective control of this disastrous disease.

INSANITATION PROVES EXPENSIVE

Owners of restaurants and groceries in a southern county have found that it is very expensive to maintain insanitary conditions within their places of business. Two restaurant owners were recently prosecuted and one was fined \$75 and given 30 days within which to thoroughly renovate his premises. The other individual was found guilty, fined \$50, and is required to report monthly to the probation officer for two years in spite of the fact that he is no longer engaged in the food handling business. The State Department of Public Health is actively conducting campaigns to improve the sanitation of all food producing and dispens-

ing establishments. It is cooperating with local health departments in promoting sanitation of restaurants, factories, walnutselling plants, canneries, meat markets, and many other food producing establishments. It has found that the production of evidence, by making flashlight photographs, is particularly effective in securing convictions of those who violate the Food Sanitation Act. Most of the courts are active in their support of the department's efforts to eliminate insantiation.

PRESENT STATUS OF EMERGENCY MATERNITY AND INFANT CARE PROGRAM FOR DEPENDENTS OF MEN IN THE ARMED FORCES

Despite the innumerable administrative difficulties inherent in all medical care plans much progress is being made in this program which involves individual arrangements with all of the local health departments and most of the physicians and hospitals in the State. The early announcements from Washington gave the general impression that "approval from Washington" assuring funds would, like the touch of Midas, make all things possible.

Local health officers, physicians and hospital executives, who have been interviewed so far, have all assured the State Department of Public Health of their willingness to do everything possible to see that good care is made available to wives of men in our armed forces and for their infants. This response has been most gratifying. The program as outlined is subject to a great many Federal regulations, all of which have not been so well received but, despite these difficulties, the program is now in operation in a number of local areas.

The Bureau of Maternal and Child Health has been in close touch with the American Red Cross and that organization has offered every assistance. At this time Home Service Divisions of local Red Cross Chapters have been requested to continue assisting soldiers' dependents as they have in the past and they have given assurance that they will continue to do so until the new program is in full operation, as much hardship would result if this relief were withdrawn prematurely.

All applicants for care under the program are being advised to keep in touch with their local full-time health officer for information as to the status of the plan in local areas. Where negotiations have been completed with individual doctors and hospitals in areas without full-time health service, applications

are being received in the San Francisco office of the Bureau of Maternal and Child Health. Mimeographed memoranda have been prepared for the use of physicians and of hospitals who are interested in participating in the program. These memoranda are available from the Bureau of Maternal and Child Health.

Births	January 1943		February 1943		March 1943	
	Total	To wives of men in armed forces	Total	To wives of men in armed forces	Total	To wives of men in armed forces
		Calif.		Calif.		Calif.
California.....	13,483	2,109	12,993	2,228	14,939	2,878
Alameda Co. (excl. of).....	42		39	1	38	4
Oakland.....	703	87	635	81	711	126
Alameda.....	87	20	59	13	78	12
Berkeley.....	205	25	186	28	183	27
San Leandro.....	1		1		1	
Albany.....	69	4	80	6	72	7
Hayward.....	65	4	52	8	69	4
Piedmont.....						
Alpine.....						
Amador.....	6		5		4	
Butte Co. (excl. of).....	57	10	60	6	67	7
Chico.....	17	6	15	3	25	8
Calaveras.....	3		1		4	
Colusa.....	22	3	13	1	13	4
Contra Costa Co. (excl. of).....	25	3	37	2	37	6
Richmond.....	113	8	113	8	139	5
Martinez.....	38	3	26	6	41	8
Pittsburg.....						
El Cerrito.....			2			
Antioch.....	35	3	41	1	43	
Del Norte.....	1		1		10	2
El Dorado.....	11		10		13	
Fresno Co. (excl. of).....	131	21	127	15	151	27
Fresno.....	131	28	144	38	137	30
Coalinga.....	9		11	2	15	1
Glenn.....	9		12	3	8	2
Humboldt Co. (excl. of).....	24		17		26	4
Eureka.....	34	8	48	5	61	6
Imperial Co. (excl. of).....	3		39	2	42	6
Brawley.....	61	2	41	4	50	4
Calixto.....	12	1	19	1	16	2
El Centro.....	48	7	14	1	47	6
Inyo.....	25		30	1	38	
Kern Co. (excl. of).....	139	26	133	33	180	41
Bakersfield.....	151	38	116	24	137	28
Kings Co. (excl. of).....	28		28	3	38	3
Hanford.....	46	11	51	12	45	17
Lake.....	8		2		8	
Lassen.....	24	3	42	3	34	5
Los Angeles Co. (excl. of).....	485	62	573	70	627	105
Los Angeles.....	2,809	330	2,445	339	2,638	423
Alhambra.....	67	11	67	5	73	15
Long Beach.....	608	138	489	126	602	160
Pasadena.....	152	30	162	32	188	33
Pomona.....	59	8	58	11	52	6
Santa Monica.....	199	22	109	13	398	70
Glendale.....	244	18	309	46	305	29
Monrovia.....	14	1	16	3	12	2
Redondo Beach.....	3		2		2	
South Gate.....	45	6	92	11	94	16
Torrance.....	73	12	67	7	72	10
Whittier.....	90	12	60	1	69	10
South Pasadena.....	1	12		6		16
Aradria.....						
Bell.....	51	8	95	7	78	11
Beverly Hills.....					1	
Burbank.....	27	4	38	3	36	2
Compton.....	50	3	61	8	83	17
Culver City.....	34	4	66	6	64	9
Hawthorne.....	61	3	47	4	51	4
Huntington Park.....	46	12	70	8	76	13
Inglewood.....	96	9	97	10	114	13
Lynwood.....	13	2	20	3	23	4
Maywood.....	55	10	99	17	90	15
Montebello.....	2				4	
Monterey Park.....	38		43		5	
San Fernando.....	42	11	32	1	41	4
San Gabriel.....	1		3		2	
San Marino.....						
Azusa.....	2		8		5	4
Hermosa Beach.....	27	3	21	4	35	8
Gardena.....			2		1	
Manhattan Beach.....					20	2
Madera Co. (excl. of).....	6					
Madera.....	36	4	41	7	51	6

Births	January 1943		February 1943		March 1943	
	Total	To wives of men in armed forces	Total	To wives of men in armed forces	Total	To wives of men in armed forces
		Calif.		Calif.		Calif.
Marin Co. (excl. of).....	32	4	38	7	56	1
San Rafael.....	54	8	53	7	19	10
San Anselmo.....						
Mariposa.....	39	3	1		4	
Mendocino.....	34	13	31	4	35	1
Merced Co. (excl. of).....	94	13	82	14	83	19
Merced.....	16	2	28	7	32	7
Modoc.....	33	1	24		36	3
Mono.....					1	
Monterey Co. (excl. of).....	111	15	124	29	98	35
Monterey.....	17	14	20	20	36	33
Pacific Grove.....	38		3		18	3
Salinas.....	38	9	39	12	35	14
Napa Co. (excl. of).....	23	2	17	4	20	5
Napa.....	35		50	2	43	3
Nevada Co. (excl. of).....	12	3	15	29	18	4
Grass Valley.....	16	5	9		15	2
Orange Co. (excl. of).....	45	2	54	5	51	4
Santa Ana.....	45	7	68	15	82	19
Anaheim.....	15	5	15	10	13	2
Fullerton.....	46	9	51	31	65	9
Orange.....	62	17	87	31	103	37
Placer Co. (excl. of).....	22	1	21		20	6
Roseville.....	1		1		4	
Plumas.....	12		15		20	
Riverside Co. (excl. of).....	81	13	79	17	98	23
Riverside.....	125	37	135	48	141	64
Corona.....	15	2	18	3	12	2
Sacramento Co. (excl. of).....	11		12		3	
Sacramento.....	379	64	378	74	372	92
San Benito.....	14	1	15	2	14	1
San Bernardino Co. (excl. of).....	88	7	70	10	80	18
Redlands.....	29	6	27	4	25	9
San Bernardino.....	151	27	138	16	153	31
Ontario.....	11		11		14	
Colton.....	2		1		2	
Upland.....	68	7	42	6	73	10
San Diego Co. (excl. of).....	136	54	98	38	121	47
San Diego.....	565	160	621	170	708	208
Coronado.....	10	3	11	1	15	4
National City.....	81	6	68	7	71	10
Chula Vista.....					1	
San Francisco.....	1,088	212	1,103	249	1,204	309
San Joaquin Co. (excl. of).....	72	10	72	8	83	7
Stockton.....	138	21	124	19	143	25
Lodi.....	38		39	1	49	9
San Luis Obispo Co. (excl. of).....	42	19	31	18	49	31
San Luis Obispo.....	32	17	34	9	62	30
San Mateo Co. (excl. of).....	1				3	
San Mateo.....	90	11	70	10	126	14
Burlingame.....			1			
Daly City.....					1	
Redwood City.....	6		9		8	2
South San Francisco.....	16	3	30	2	12	
San Bruno.....						
Santa Barbara Co. (excl. of).....	17	8	33	15	34	18
Santa Barbara.....	51	14	44	12	56	10
Santa Maria.....	40	11	58	20	34	7
Santa Clara Co. (excl. of).....	163	20	142	20	166	31
San Jose.....	115	15	117	10	129	19
Palo Alto.....	106	21	94	19	133	16
Santa Clara.....	1		1			
Santa Cruz Co. (excl. of).....	15	6	5	3	4	3
Santa Cruz.....	33	3	27	5	35	10
Watsonville.....	35	9	33	6	33	12
Shasta Co. (excl. of).....	11		9		14	1
Redding.....	39	4	42	3	79	6
Sierra.....	1					
Siskiyou.....	34	4	28	5	41	3
Solano Co. (excl. of).....	28		31	1	27	2
Vallejo.....	224	36	156	40	163	48
Sonoma Co. (excl. of).....	46	11	41	9	56	11
Petaluma.....	19	3	35	5	35	3
Santa Rosa.....	44	3	31	8	33	3
Stanislaus Co. (excl. of).....	55	2	55	5	50	3
Modesto.....	131	17	94	8	96	12
Sutter.....	35	7	19		64	11
Tehama.....	32		18		20	1
Trinity.....					1	
Tulare Co. (excl. of).....	91	7	123	16	148	13
Visalia.....	42	11	46	8	41	7
Porterville.....	13	4	31	3	32	8
Tulare.....	1		1		4	1
Tuolumne.....	6	2	10	1	15	2
Ventura Co. (excl. of).....	32	3	24	3	38	8
Oxnard.....	33	7	45	8	32	4
Santa Paula.....	13	1	29	5	41	3
Ventura.....	34	9	15	6	70	14
Yolo Co. (excl. of).....	26		24		12	
Woodland.....	1		7		19	4
Yuba Co. (excl. of).....					1	
Marysville.....	25	4	23	8	35	8

SWIMMING POOL SANITATION

Whenever infantile paralysis is more prevalent than usual, the public shows increased interest in swimming and the possibility of the transmission of the disease in swimming pools. The California State Department of Public Health has issued instructions for the improvement of swimming pool sanitation. Operators are advised to maintain a high water level in scum gutters so as to keep the scum and sputum flowing continuously to the sewer. They are advised to wash down floors and walks, sprinkling with a chlorine solution, at least twice daily and to thoroughly wash and rinse suits and towels, drying them thoroughly in the sun wherever possible. They are encouraged to change the water in the pool as often as possible and wherever equipment is available to disinfect the water by means of chlorination. While it is not certain that chlorine is effective in killing the virus of poliomyelitis, it is important that no effort be left undone in the purification of water in swimming pools. Operators are advised further to exclude persons showing symptoms of colds, inflamed eyes or indications of fever. Swimmers are to be instructed to avoid diving and under water swimming as much as possible and not to blow out the nostrils or spit in the pool water or on side-walks. Patrons are required to take shower baths before entering pools.

HEALTH OF MEXICAN NATIONALS IN CALIFORNIA

The Bureau of Local Health Service has been in active cooperation with the Farm Security Administration to keep all of the State's local health officers informed relative to their responsibilities in the maintenance of health protection of Mexican nationals imported into California for the purpose of engaging in essential agricultural work.

PREVENTION OF FOOD ADULTERATION

The increasing use of fillers, substitutes, "stretchers," "extenders," and imitations of scarce or unobtainable food items has necessitated an increase in vigilance upon the part of the State Department of Public Health. Particular attention has been paid to spices, since supplies of this product have been curtailed drastically. Cinnamon is imitated most widely, the adulterated product being composed of a cereal base flavored with oil of cassia. About 250 cases of this product labeled "Cinnamon—artificially colored" have been quarantined. This is a flagrant deception, since the product contains no cinnamon whatsoever. Cloves,

nutmeg, mace, and white pepper are also imitated, as well as cocoa. Some cocoa, so-called, contains sugar for flavor and has some food value at least, but others are composed entirely of pulverized cocoa hulls, merely crude fiber which is generally used for animal feed.

A filler designated as a "Base Mix for Hamburgers" composed of cracker crumbs, dehydrated vegetables, and flavor is offered to the consumer correctly labeled. When used by a restaurant or hamburger stand, however, it constitutes a petty fraud.

Among other imitation products under investigation are imitation butter flavor, imitation almond paste, imitation lemon and orange emulsifiers, pie thickeners, mineral oil for emulsions because of scarcity of vegetable oils.

ACTIVITIES IN LABORATORY RESEARCH

In its Virus Diagnostic Unit, the California State Department of Public Health has made many important studies in the more unusual communicable diseases. Among these are the so-called "shipyard eye" (Keratoconjunctivitis), lymphogranuloma venereum, encephalomyelitis, and endemic typhus. A strain of endemic typhus rickettsia has been isolated from the brain of a rat trapped near San Bernardino, California, from the immediate area from which a human case of typhus developed. *This is the first instance in which the rickettsia of endemic typhus has been recovered from rodents in California.* Cross neutralization tests have been applied and the identity of the strain proved.

EMERGENCY MATERNAL AND INFANT CARE

Plans for the provision of emergency maternity and infant care were continued throughout the past month. Meetings were held with representatives of the California Medical Association, American Red Cross, California Hospital Association, Los Angeles and San Francisco hospital administrators, Army and Navy emergency relief organizations and representatives of the Federal Children's Bureau. Considerable time was devoted to conferences with local health officers, physicians and Red Cross representatives to lay the foundations for fitting the emergency program to the needs of local areas.



